

Notice of Allowability

Application No.

09/817,796

Examiner

Walter F. Briney III

Applicant(s)

CHEUNG ET AL.

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 20 December 2004 after a Non-Final office action.
2. ☒ The allowed claim(s) is/are 2-20.
3. ☒ The drawings filed on 27 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given by electronic mail and through telephonic interviews with John C Gorecki on 10 May 2005 and 12 May 2005.

The changes to be made to the claims are as follows:

Claim 1. (Canceled)

Claim 2. (Currently Amended) ~~The management system of claim 1~~ A management system configured to perform operation, administration, and maintenance (OAM) functions for a telecommunications switch, said telecommunications switch having a first network interface card, a first processor card, further having and a second processor card, the management system further comprising:

a protocol unit residing on the first processor card for receiving a management request relating to at least one of the OAM functions;

a first request unit residing on the first processor card for creating a first request object in response to the received management request;

a second request unit residing on the second processor card for creating a second request object in response to the received management request, and

a first action unit residing on the first network interface card for executing the received management request in response to an instruction from the first request object;

and wherein,

the protocol unit includes a first resource broker for receiving utilization information on the first and second processor cards from the first and second request

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units and is operable to select, in dependence upon the utilization information, one of the request units to which to send the received management request.

Claim 3. (Currently Amended) A management system configured to perform operation, administration, and maintenance (OAM) functions ~~The management system of claim 1~~ for a telecommunications switch, said telecommunications switch having a first network interface card, ~~further having~~ a second network interface card, and a first processor card, the management system further comprising:

a protocol unit residing on the first processor card for receiving a management request relating to at least one of the OAM functions;

a first request unit residing on the first processor card for creating a first request object in response to the received management request;

a first action unit residing on the first network interface card for executing the received management request in response to an instruction from the first request object;
and

a second action unit residing on the second network interface card for executing the received management request in response to an instruction from the first request object,

and wherein,

the first request unit includes a second resource broker for receiving utilization information on the first and second network interface cards from the first and second action units and is operable to select, in dependence upon the utilization information, one of the action units to which to send the instruction.

Claim 16. (Currently Amended) The management system of claim [[1]]2, wherein the telecommunications switch includes a Management Information Base (MIB) containing MIB variables that may be accessed via the management system, and wherein the OAM function of the management request relates to accessing at least one of the MIB variables.

Claim 20. (Currently Amended) The network switch of claim [[1]]2, wherein the first network interface card is configured to handle network traffic; and wherein the first processor card is configured to influence operation of the first network interface card.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Claim 1 has been cancelled while claims 2 and 3 have both been amended to include the limitations of claim 1.

Claims 2-20 have all been amended to state that a management system performs some type of operations, administration or management (OAM) function. As pointed out by the applicant in their response filed 20 December 2004, the system of Agarwal et al. recited by the examiner does not actually concern the distributed processing such OAM functions. In a similar move for efficiency, Agarwal does perform distributed trunk hunting as outlined in figure 4, however, all OAM functions are performed centrally by the administration module (30). Therefore, Agarwal fails to disclose a first action unit residing on the first network interface card for executing the received management request as recited in claims 2-9 and 16-20; Agarwal fails to disclose executing, by the action object, the management request relating to the at least one OAM function on the managed object as recited in claims 11-15.

On 03 May 2005, the examiner and the applicant's representative discussed by telephonic interview the merits of prior art references US Patent No. 6,724,728 (Manchester et al.) and US Patent No. 6,226,293 (Sakayori). It was shown that while

both the Manchester and Sakayori references disclosed the limitations of claim 1, they both failed to disclose or make obvious the limitations of claims 2 and 3.

With respect to Sakayori, the data editing terminal (1) of figure 1 of Sakayori transmits an OAM function request to the ATM switch central controller (2), which corresponds to a first processor card. The unit (not shown) of the central controller (2) that receives this request corresponds to a protocol unit, while the unit (not shown) that forwards this request to each user network interface unit (UNI) OE-1 through OE-n corresponds to a first request unit on the first processor card. Whichever UNI unit receives the OAM request corresponds to the first action unit residing on the first network interface card. However, there is no second processor card as called for in claim 2 because the central controller (2) handles all forwarding on its own. In addition, there is no second resource broker as called for in claim 3 because each OAM request originated by the data editing terminal is destined for one particular UNI. The requests are not transferable in the manner of claim 3. Thus, both claims 2 and 3, as amended herein, are allowable over Sakayori.

With respect to Manchester, figure 3 depicts a switch processor (84) that corresponds to the first processor card. It receives OAM requests by way of one of the plurality of line cards depicted in banks (70) and (72), the originating line card corresponds to the first network interface card. Like in Sakayori, a protocol and request unit inherently exist within the switch processor (84). When a OAM request is received by the switch processor (84), the request is redirected back towards the local processor from which it was received. In this manner, OAM request processing is offloaded to the

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local processors (80) depicted in figure 3. Much like Sakayori, there is no second processor card as recited in claim 2, nor is there a second resource broker for selecting a second network card to perform the OAM request; only the originating local processor (80) can fulfill the OAM request. Thus, both claims 2 and 3, as amended herein, are allowable over Manchester.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


The Commissioner is hereby authorized by the applicant's representative, John C Gorecki, by a telephonic interview on 10 May 2005 with the examiner of record, Walter F Briney III, to charge payment of the fees associated with entry of the Examiner's amendment, including the fee for an additional independent claim and any other fees deemed due in connection with this matter, to Deposit Account No. 502246 (Ref. NN-14114).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB
5/12/05


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SUPERVISORY PATENT EXAMINER